

IOWA ANNUAL WEATHER SUMMARY – 2008

General Summary. Temperatures over the past year averaged 45.8° or 2.0° below normal while precipitation totaled 43.79 inches or 9.71 inches above normal. This ranks as the 11th coolest and 4th wettest year among 136 years of state records. The last cooler year came in 1996 while only 1993 (48.22”), 1881 (44.16”) and 1902 (44.04”) brought more precipitation. The previous year of 2007 now ranks fifth wettest year (43.35”).

Temperatures. Cooler than normal weather was the rule for most of the year as only September and November recorded above normal temperatures. Annual temperature extremes ranged from a low of -30° at Stanley on January 24 to a high of 100° at Hawarden on August 3. Wind chill indices dipped to -45° at Estherville and Spencer on February 20th, Iowa’s lowest wind chill since January 10, 1997. Several northeastern Iowa locations never reached 90° during the year while statewide there was an average of only five days with temperatures reaching 90° or higher. Only in 1915 and 1992 have fewer 90° days been recorded. However, despite the persistent cool weather the first hard freeze of the fall came unusually late over most of Iowa. This was welcome news for crops that were far behind in maturity owing to late planting and early season cool weather. A few northeast Iowa locations dipped into the upper 20’s on October 4. However, a hard freeze did not arrive over most of northern and western Iowa until the morning of October 16 while parts of southeastern Iowa were spared until October 28.

Precipitation. Iowa came into 2008 with saturated soils and high river levels owing to a very wet last five months in 2007 (wettest August ever, 4th wettest October and 2nd wettest December). A long cold and wet winter in 2007-2008, followed by a cool and wet spring set the stage for catastrophic flooding when two weeks of heavy rain poured over the state from May 29 to June 12. A statewide average of 9.03 inches of rain fell in this period, probably the greatest 15 day rain total in the state’s history (normal for the period is 2.45 inches). Flooding was widespread over the southeastern two-thirds of Iowa with record flooding down the length of the Cedar River and along portions of the Des Moines, Iowa and Mississippi Rivers. Cedar Rapids was hardest hit with a June 13 flood crest 11 feet higher than the previous record. Statewide an estimated \$10 billion in flood damage occurred. Overall flooding was not as widespread or as long lasting as in 1993, but damage was more severe. Localized downpours resulted in more flooding in south central Iowa during July. However, much of the state saw much drier weather after mid June with drought conditions affecting parts of western and far northern Iowa by August. Annual precipitation totals varied from 25.90 inches at Spirit Lake to 60.47 inches at Allerton. Some portions of northwest Iowa recorded slightly less than normal precipitation for the year while very heavy precipitation was the rule over south central, central and east central Iowa. Record annual precipitation totals were set at:

City	2008 Total	Old Annual Record	Length of Record
Allerton	60.47	53.72 in 1902	104 years
Centerville	59.23	58.15 in 1973	102 years
Mount Ayr	55.71	55.02 in 1993	106 years

Cascade	54.22	51.40 in 1993	66 years
Manchester	52.98	47.84 in 1951	103 years
Massena	50.96	50.56 in 1973	97 years
Bellevue	49.17	45.13 in 1993	69 years
Guttenberg	46.42	45.92 in 2007	71 years

Snowfall was unseasonably heavy in both February and December. Oskaloosa recorded 41.7 inches of snow in February while Waukon saw 35.5 inches of snow in December. Based upon statewide averages it was the 3rd snowiest February and 4th snowiest December among 121 years of records. The calendar year of 2008 ranks 4th snowiest of record statewide, and comes among several other very snowy years recently (2007 ranked 9th, 2000 was 8th and 1997 2nd).

Severe Weather. The 2008 severe weather season got off to a fairly slow start; however, that was to change abruptly and tragically on May 25. Iowa's first F5 tornado since 1976 struck Parkersburg and nearby areas in the early evening of May 25 resulting in nine fatalities and an estimated \$100 million in damage. An F3 storm struck the Little Sioux Scout Camp on June 11 resulting in another four fatalities. Overall the 13 deaths was Iowa's highest annual number of tornado-related fatalities since 1968. The National Weather Service reported a total of 105 tornadoes in the state in 2008, tying with 2001 as the second greatest annual total behind a tally of 120 twisters in 2004. The average annual number of tornadoes in Iowa during the Doppler radar era (when tornado detection and reporting improved greatly) is 56. Fortunately, the second half of the year was much quieter with 16 tornadoes, none of which was stronger than F1 intensity.

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